CLAIMS

1. A coin configuration detection method that magnetically detects a configuration of a coin to identify a kind and/or authenticity of the coin,

characterized in that a magnetic flux change in a vicinity of a surface of the coin is detected by a detection coil in which a coil central line is along the surface of the coin and a coil peripheral surface is locally opposed to the surface of the coin while an AC magnetic field along the surface of the coin is generated in an interior of the coin and/or in a surface space of the coin.

2. A coin identification sensor that magnetically detects a configuration of a coin to identify a kind and/or authenticity of the coin, comprising:

an exciting portion that generates an AC magnetic field along a surface of the coin in an interior of the coin and/or in a surface space of the coin; and

a detection coil that is disposed so that a coil central line is along the surface of the coin and a coil peripheral surface is locally opposed to the surface of the coin, and detects a magnetic flux change in a vicinity of the surface of the coin.

3. A coin identification sensor according to Claim 2, characterized in that the exciting portion is an exciting coil being disposed so that a coil inner surface or a coil peripheral surface is along the surface of the coin and generating an AC magnetic field along the surface of the coin in the interior

of the coin and/or in the surface space of the coin, and that the detection coil is disposed in an inner surface portion of the exciting coil or in a vicinity thereof, or in a peripheral portion of the exciting coil or in a vicinity thereof.

4. A coin identification sensor according to Claim 2, characterized in that the exciting portion has a plurality of coin adjacent portions, and is provided with a ferromagnetic core that forms a looped magnetic circuit with the interior and the surface space of the coin inside and an exciting coil that AC-excites the core and generates an AC magnetic field along the surface of the coin in the interior of the coin and/or in the surface space of the coin.

5. A coin identification sensor according to any of Claims 2 to 4, characterized in that the detection coil is a differential coil capable of detecting a differential voltage, and a pair of coils constituting the differential coil line along the surface of the coin.

6. A coin identification sensor according to any of Claims 2 to 5, characterized in that the detection coil is provided in a plurality of numbers so as to line along the surface of the coin.

7. A coin identification apparatus that identifies a kind and/or authenticity of a coin, characterized in that a configuration of the coin is detected by the coin identification sensor according to any of Claims 2 to 6 and the kind and/or the authenticity of the coin is identified based on a detected configuration.